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**(57) Abstract**

Nuclear fuel dissolution apparatus comprises a perforated sloping ramp (6) located within a process chamber (1). A pulsation member creates pulses in the solvent in the container, and the perforations of the sloping ramp are designed to direct pulses of solvent along and up the ramp. A discharge point (17, 18) for fuel holes is disposed at an upper region of the ramp. A method of dissolving fuel in chopped nuclear fuel pins is also described.

